

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at page 1, line 13, as follows:

Among various technologies available for measuring pressures within the frame of medical investigations or diagnostic methods the Pressure Profile Sensor Method has been developed recently (PPS-Method). U.S. Pat. No. ~~6,450,972~~6,450,972 of Sep. 17, 2002 and the literature cited therein provide detailed information concerning the fundamentals of that technique and its potential uses--see also "Pressure Profile Sensing Systems" in Sensors and Actuators A 93 (2001), 52-56, Elsevier Science B.V.

Please amend the paragraph beginning at page 2, line 23, as follows:

The invention, finally, provides an apparatus suitable for performing a method for performing pressure, respectively pressure profile, measurements in mammals by means of the pressure profile sensors technique, which comprises a) introducing into the mammal a catheter having at least a portion of its wall which is sufficiently flexible to be deflected by external pressure; b) introducing progressively into the catheter lumen an electrically conductive liquid substance while applying simultaneously to it alternative current and mechanical oscillations; c) detecting by means of an electrode placed at the external surface of the subject the leakage current induced by the liquid substance traveling through the catheter; d) transferring the leakage current thus recorded to a converter suitable to convert the leakage current parameters provided thereto into corresponding pressure values; and e) displaying the pressure values as such, or as a function of the measurement location or measurement period or both to afford

corresponding pressure profilesthe method defined in claim 1. The apparatus itself is an apparatus for performing the foregoing method, which comprises a source of an electrically conductive liquid substance connected to an alternative current source; peristaltic pumping means fitted directly to the source of liquid substance; mechanical oscillation means connected downwards to peristaltic pumping means; an electrode placed at the external surface of the subject for recording and then transferring the detected leakage current to the converter; a converter suitable for deriving pressure values from the leakage current parameters which have been transferred thereto; and means suitable to display pressure values as such, or as a function of the measurement location or measurement period or both~~defined in claim 13.~~

Please amend the paragraph beginning at pageline 5 follows:

Said catheter is made of innocuous polymer plastic material, preferably of non-conductive polymer material and it does not need to comprise conductive material such as metal strips or inner metal coating. This allows manufacturing thin and flexible tubes which are cheaper and easier to handle than those used for the prior known technology -see e.g. U.S. Pat. No. 6,459,972<u>6,450,972</u>. Such catheters revealed furthermore definitely less painful for the patients. Suitable polymer material can be selected among silicon, rubber, latex, polyurethane, PVC, polypropylene, PE or the like.

Please amend the paragraph beginning at page 6, line as follows:

According to the invention the leakage current induced by the electrically excited saline solution progressing through the catheter is recorded by a currently available electrode placed at the external surface of the subject body. One of the main features of the present invention resides in the fact that the leakage current thus induced is strong and homogenous enough to reflect accurately the pressure values measured at a given location. When compared to prior known PPS-Method e.g. according to U.S. Pat. No. 6,459,972, which is based on capacitance measurements, the method according to the present invention proved definitely more sensitive and more precise for the same electrical excitation parameters.